



CURRICULUM MAP FOR: AQA GCSE GEOGRAPHY KS4 (I)

<p>Topic 1: The Living World</p> <p><u>How do ecosystems operate?</u> Ecosystems exist at a range of scales (small-scale, e.g. rockpool compared to biomes e.g. tropical rainforest). Biotic features and living and abiotic features are non-living.</p>		<p>Guided reading opportunity – introduction to ecosystems.</p> <p>Guided reading opportunity – Wolves in Yellowstone.</p>
<p><u>How are food chains and food webs different?</u> Food chains are a line of linkages between a producer and consumers. Food webs are diagrams that show multiple links between producers and consumers.</p> <p><u>How does change affect an ecosystem?</u> Wolves reintroduced into Yellowstone National Park impacted the ecosystem significantly. e.g. there were less deer and more species of tree.</p> <p><u>How does the distribution of large scale ecosystems differ?</u> Tropical rainforests are found along the Equator and between the Tropic of Cancer and Tropic of Capricorn. Hot deserts are largely found along 30° N/S. Deciduous forests are largely found along 60° N/s. Polar deserts are largely found at 90° N/S.</p> <p><u>How does the characteristics of large scale global ecosystems differ?</u> Climate consists of temperature and precipitation. Tropical rainforest climate is hot and wet, there is high levels of biodiversity and the soil is largely infertile. Hot deserts are hot and dry, there are lower levels of biodiversity and the soul is largely infertile. Deciduous forests are mild and temperate (seasonal) whereas polar deserts are cold and dry.</p> <p><u>What are the characteristics of vegetation in the rainforest?</u> Physical condition: Hot, wet and largely interfile soil (the only nutrients are in the very top layer). Stratification occurs in the rainforest, there are four layers: Shrub, under canopy, canopy and emergent. Specific adaptations include: drip tips, buttress roots and lianas.</p>		<p>Extended writing opportunity – Pupils answer exam style questions at the end of the lesson ranging from 1-9 marks.</p> <p>Extended writing opportunity – ‘Assess the extent to which environmental effects of deforestation have a greater impact than socio-economic effects’ (9 marks)</p> <p>Extended writing opportunity - ‘To what extent do hot desert environments provide both opportunities and challenges for development’ (9 marks).</p> <p>Extended writing opportunity – Describe and explain the features of vegetation found in figure. (6 marks)</p> <p>Extended writing opportunity – Describe and explain how the animals shown in figure have adapted to survive in hot desert environments. (6 marks)</p> <p>Extended writing opportunity – Explain how changes to the ecosystem in turn changes the physical environment of an ecosystem you have studied.</p> <p>Extended writing opportunity – Describe how change can affect a small scale ecosystem.</p> <p>Extended writing opportunity – Explain how ecotourism is a sustainable management strategy.</p>
<p><u>How have animals adapted to live in the rainforest?</u> Animals have adapted to live in the rainforest in many ways. E.g. Anteaters live in the shrub layer and have long tongues to eat thousands of insects each day. Sloths live in the canopy layer and are camouflaged to blend in due to their slow speed.</p>		<p>‘Turn and talk’ opportunity – Discuss what a food chain would be for the sparrow hawk.</p> <p>‘Turn and Talk’ oppurtunity – What animal adaptation can be seen from the figure provided.</p>
<p><u>Why are rainforests important?</u> Tropical rainforests are important as they are: a source of food (cocoa, sugar, bananas); a source of products; medicine; wildlife habitats; stabilises the climate; purify the water cycle and protect from soil erosion.</p>	<p>Homework</p>	<p>Homework tasks will be given every week. Homework will support knowledge acquisition and retention. Challenge homework tasks will be provided. All homework will be recorded on EduLink.</p>



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<p><u>Why is deforestation happening in tropical rainforests?</u> Deforestation rates are increasing in some places (Malaysia) and decreasing in others (Brazil). Deforestation occurs due to road building, mining, population pressure, energy, farming, cattle ranching and logging.</p> <p><u>How are people and the environment impacted by deforestation?</u> There are social, economic and environmental impacts of deforestation. These can be positive and negative. These include: native tribes losing their homes, employment opportunities and soil erosion leading to flooding.</p> <p><u>How can the rainforest be managed sustainably?</u> Rainforests can be sustainably managed at three levels: locally, nationally and internationally. International strategies include: international hardwood agreements, conservation/education and promoting ecotourism.</p> <p><u>What are the physical characteristics of hot deserts?</u> A desert is an area that receives less than 250mm of rainfall per year. They are mostly found in dry continental interiors, away from coasts. High temperatures in the day but below freezing at night. Soils are mainly sandy and/or stony and are largely infertile.</p> <p><u>How do plants adapt to hot deserts?</u> Succulents are plants with a thickened, fleshy structure which allows them to retain water. Plants in the desert can have tap roots which are long roots which extend far down in the soil to find water. Some plants become dormant which is when a plant's growth is temporarily stopped. Plants aim to minimise transpiration which the evaporation of water from plant leaves.</p> <p><u>How do animals adapt to hot deserts?</u> Animals have adapted to survive the high temperature and low amounts of rainfall. Camels have a store of fat in their hump which they can break down into work and/or nutrients when needed. They also have long eyelashes to avoid sand irritating their eyes. Fennec foxes have adapted to hot deserts by having sand coloured fur for camouflage, have fur lined feet to avoid the hot desert sand and large ears to encourage heat loss.</p> <p><u>What are the development opportunities in hot deserts?</u> There are four main opportunities for development in hot deserts: farming (agriculture), mineral extraction (mining), energy and tourism.</p> <p><u>What are the development challenges in hot deserts?</u> There are three main challenges of development in hot deserts: lack of water, climate and accessibility.</p>	<p>Subject specialist keywords:</p> <p>Abiotic Biotic Consumer Decomposer Ecosystem Food chain Food web Nutrient cycling Global ecosystem Producer Biodiversity Commercial farming Debt reduction Deforestation Ecotourism Logging Mineral extraction Selective logging Soil erosion Subsistence farming Sustainability Appropriate technology/immediate technology Biodiversity Desertification Hot desert Over-cultivation Overgrazing</p>
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<p><u>What causes desertification?</u> Desertification is the process by which fertile land becomes infertile. It is caused by both human and physical factors including: overcultivation, overgrazing and demand for firewood, which all result in soil erosion.</p> <p><u>What are the solutions to desertification?</u> There are three main solutions to desertification: afforestation, water and soil management and appropriate technology.</p> <p><u>End of Topic Assessment</u> Complete an exam style assessment based on learning from 'The Living World'.</p>		
<p>British Values:</p> <p>Individual liberty: Students are able to have a freedom of expression whilst respecting others during contributions to class discussions. Students are encouraged as much as possible to develop independent learning skills to help us take control of our own learning. Students have opportunities to critically examine our own values and attitudes (in debating issues, contributing in class etc.)</p> <p>Democracy: Students explore and discuss injustices and inequalities (perceived or real) and challenge and debate these through the exploration of geographical topics.</p> <p>Careers Link: Environmental Conservationist Zoologist Forestry worker Farmer Environmental consultant Ecologist</p>		
<p>Topic 2: The Challenge of Resource Management</p> <p><u>Why are essential resources significant to human wellbeing?</u> The essential resources are food, water and energy. They are essential in: sustaining life, development (industrialisation and supporting economic growth) and improving quality of life.</p>		<p>Guided Reading opportunity – What are essential resources?</p> <p>Guided Reading opportunity – Why are essential resources important?</p> <p>Guided Reading opportunity – Fracking.</p>
<p><u>Are essential resources distributed equally around the world?</u> Most HIC's have plentiful resources, many of them imported. Many poorer countries lack resources and struggle to improve quality of life.</p> <p><u>Why is there a changing demand for food?</u> Before the 1960s, food was locally produced and seasonal. Now there is a growing demand for high value food, exported from low-income countries and all-year demand for seasonal food and organic produce.</p> <p><u>Why is there a changing demand for energy?</u></p>		<p>Extended writing opportunity - Pupils answer exam style questions at the end of the lesson ranging from 1-6 marks.</p> <p>Extended writing opportunity – Explain how inequalities in the supply of resources influence social wellbeing.</p> <p>Extended writing opportunity – ‘To what extent is it preferable to source food locally in the UK rather than import from abroad?’ (6 marks)</p> <p>Extended writing opportunity –</p>



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<p>Energy consumption has fallen in the UK in recent years due to the decline of heavy industry and energy conservation. Reduced domestic supplies of coal, oil and gas. About 75% of oil and natural gas reserves in the UK have been used. The UK's energy security is affected as it is dependent on imported energy.</p> <p><u>Why do certain countries have a water deficit?</u> Areas of water surplus have a supply of water that exceeds demand. They have water security. Areas of water deficit are where demand exceeds supply. They have water insecurity.</p>		<p>Explain why the process of fracking for gas causes conflict between different groups of people' (6 marks).</p> <p>Extended writing opportunity – Explain how water insecurity can be improved. (6 marks).</p> <p>Extended writing opportunity – Explain how local strategies are being used to increase sustainable supplies of water. (6 marks).</p>
<p><u>Why is a water deficit a problem?</u> Water deficit is a problem as it can lead to contracting waterborne diseases, lack of food production, lack of industrial output and potential for conflict.</p>		<p>'Turn and talk' opportunity – Why is water an essential resource? What is it used for?</p> <p>'Turn and talk' opportunity – Why do LIC's have less access to essential resources compared to HIC's?</p>
<p><u>How can countries increase their water supply?</u> Countries can increase their water supply by: diverting water and increasing storage, building dams and reservoirs, using water transfer schemes and desalination.</p>	<p>Homework</p>	<p>Homework tasks will be given every week. Homework will support knowledge acquisition and retention. Challenge homework tasks will be provided. All homework will be recorded on EduLink.</p>
<p><u>How can we move towards a sustainable resource future?</u> Sustainable approaches focus on management of water resources, reducing waste and excessive demand. This is done through water conservation, groundwater management, use of grey water and recycling.</p>		<p>Subject specialist keywords: Agribusiness Carbon footprint Energy mix Food miles Fossil fuels Local food sourcing Organic produce Resource management Aeroponics Biotechnology Famine Food insecurity Food security Hydroponics Irrigation Permaculture Sustainable development Sustainable food supply The new green revolution Undernutrition Urban farming</p>
<p><u>How can local areas in LIC/NEEs move towards a sustainable resource future?</u> LIC/NEE local strategy required, e.g. Case Study on food/water/energy – changeable depending on AQA.</p>		
<p><u>End of Topic Assessment</u> Complete an exam style assessment based on learning from 'The Challenge of Resource Management'.</p>		

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Students are encouraged as much as possible to develop independent learning skills to help us take control of our own learning.
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Tolerance of different cultures and religions: Students understand the importance of identifying and combating discrimination including tackling stereotypes.



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Mutual respect: Students have opportunities to understand our responsibilities to conserve resources and play our part in sustainable development.

Careers Link:

- Climate change analyst
- Climatologist
- Pollution analyst
- Wind turbine technician
- Research scientist
- Oil and gas operations manager
- Farmer
- Conservationist

**Topic 3: UK Physical Landscapes
Section A - Coasts**

Where are the UK's major landscapes?

Upland areas are high above sea level e.g. hills and mountains. Lowland areas are low-lying land, close to the sea. The relief and geology of UK landscapes is varied.

How do waves affect the coastline?

Waves are caused by the transfer of energy from the wind to the sea due to friction on the water's surface. When a wave breaks, water rushes up the beach. This is called the swash. The water then runs back down the beach, back out to the sea under the force of gravity. This is called the backwash. There are two types of waves: constructive and destructive. Constructive waves are low energy and build up the beach. Destructive waves are high energy and erode the beach.

How does weathering and mass movement processes affect the coastline?

Weathering is the breaking down of rock in situ. The different types of weathering are: chemical weathering and mechanical weathering. Mass movement is the downslope movement of rock, soil or mud under the influence of gravity. Examples of mass movement are: sliding, slumping and rock falls.

How does erosion affect the coastline?

Erosion is the wearing away of rock through the processes of: hydraulic action, abrasion and attrition. When the ocean drops eroded material it is known as deposition. Geology affects how coasts change over time. More resistant rocks produce sturdier and more spectacular coastal features such as towering cliffs. Less resistant rocks result in a lower, slumping coastline.

How is sediment transported along a beach?

Sediment (load) is transported along the shore by longshore drift. The swash surges up the beach at a diagonal angle due to the prevailing wind. Gravity makes the backwash go back down the beach in a straight line. Sediment is transported along the beach in a zigzag pattern.



Guided Reading opportunity – Hard Engineering and Soft Engineering strategies.

Guided Reading Opportunity – The Holderness Coastline.



Extended writing opportunity - Pupils answer exam style questions at the end of the lesson ranging from 1-6 marks.

Extended writing opportunity – Explain how sediment can be transported along a beach.

Extended writing opportunity - Explain how a coastline of headland and bays forms and changes over time.

Extended writing opportunity – Explain the formation of a coastal stack. (6 marks)

Extended writing opportunity – Explain the formation of a coastal spit.

Extended writing opportunity – Explain how the **Figure** protects the coastline from erosional processes. (6 marks).


Extended writing opportunity – ‘Coastal management schemes are effective in protecting the coastline from physical processes’. Do you agree? (6 marks)



‘Turn and talk’ opportunity – What beaches have you visited in the UK? Are they a type of constructive or destructive beach? How do you know?



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<p><u>How are headlands and bays formed?</u> The bands of soft rock, such as sand and clay, erode more quickly than those of more resistant rock, such as chalk. The coastline experiences different rates of erosion. This leaves a section of more resistant rock jutting out into the sea called a headland. The areas where the soft rock has eroded away, next to the headland, are called bays.</p> <p><u>How are wave cut platforms formed?</u> Wave cut platforms are formed on headlands. The top of the headline is subjected to sub-aerial weathering, e.g. chemical weathering. The base of the cliff is subjected to erosion, mainly abrasion and hydraulic action. This creates a wave cut notch as the cliff is undercut. The headland/cliff then falls as there is nothing to support it. The backwash removes the sediment which forms the wave cut platform.</p> <p><u>How are caves, arches and stacks created?</u> Waves attack the base of a cliff. This may eventually cause a fault in the headland. Hydraulic action and abrasion attack cracks in the headland at the base of the cliff, forming sea caves over time. This process of erosion continues on both sides of the headland until the caves break through, creating an arch. Continued erosion wears away the base and sides of the arch. Sub-aerial weathering breaks down the top of the arch until it eventually becomes too weak and collapses, forming a stack, which is separated from the headland.</p> <p><u>How are beaches and sand dunes formed?</u> Sand and shingle transported by longshore drift will. In time reach an area where the water is sheltered and the waves lack energy e.g. in a bay. The material will be deposited to form a beach when the swash is stronger than the backwash. Beaches are not permanent features as their shape can be altered by waves every time the tide comes in or out.</p> <p>In order for sand dunes to form they need: a large, flat beach, a large supply of sand, a large tidal range, onshore wind and an obstacle for the dune to form against. They are formed when sand moves up the windward slope, height build up until the structure becomes unstable and sand then slips down the leeward slope.</p> <p><u>How are spits and bars formed?</u> A spit is formed where large amounts of sediment are transported by longshore drift and where the coastline suddenly changes direction to leave a sheltered, shallow area of water. Deposition can occur in the water sheltered by a headland and the spit slowly builds up to sea level and extends in length. If a spit joins one part of the mainland to another it is called a bar.</p>	 Homework	<p>‘Turn and talk’ oppprtunity – What type of hard/soft engineering strategy do you think is the most effective?</p> <p>‘Turm and talk’ opportunity – Should coastlines be protected from erosion?</p> <p>Homework tasks will be given every week. Homework will support knowledge acquisition and retention. Challenge homework tasks will be provided. All homework will be recorded on EduLink.</p> <p>Subject specialist keywords: Abrasion Arch Attrition Bar Beach Beach nourishment Beach reprofiling Cave Chemical weathering Cliff Deposition Dune regeneration Erosion Gabion Groyne Hard engineering Headlands and bays Hydraulic action / hydraulic power Longshore drift Managed retreat Mass movement Mechanical weathering Rock armour Sand dune Sea wall Sliding Slumping Soft engineering Spit Stack Transportation Wave cut platform Waves</p>
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<p><u>What landforms can be found in the Jurassic coastline?</u> The Dorset coast has a range of landforms that can be seen, these include: an Arch, Headland, Bay and Stack.</p> <p><u>How can hard engineering protect the coastline?</u> Hard engineering is a technique involving the construction of man-made structures to manage the coastline. The purpose of hard engineering is to deflect the power of the waves back into the sea. Examples of hard engineering strategies are: sea walls, groynes, rock armour and gabions.</p> <p><u>How can soft engineering protect the coastline?</u> Soft engineering is a technique that tries to work with nature to protect the coast. The purpose of soft engineering is to restore a natural look to the coastline and absorb the power of waves. Examples of soft engineering strategies are: beach nourishment, beach reprofiling and dune regeneration.</p> <p><u>How can coastal realignment protect the coastline?</u> Coastal realignment is where the position of the coast is moved to a new position inland and is often done to reduce flooding. Coastal realignment or 'managed retreat' is often seen as soft engineering and allows existing defences to be breaches and areas to flood naturally.</p> <p><u>End of Topic Assessment</u> Complete an exam style assessment based on learning from 'UK Physical Landscapes' with the focus on Coasts.</p>		
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<p>Topic 4: UK Physical Landscapes Section B – Rivers.</p> <p><u>How is a river part of a drainage basin?</u> A drainage basin is the area which is drained by a river and its tributaries. The source is where the river begins and the mouth is where it ends. A confluence is the point where two rivers join. The watershed is the perimeter of a drainage basin.</p>		<p>Guided reading opportunity – Hard and Soft Engineering strategies.</p> <p>Guided reading opportunity – Albert Dock flood wall.</p> <p>Guided reading opportunity – Types of erosion and transportation.</p>




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<p><u>How do fluvial processes operate in a river?</u> Erosion is the wearing away of the banks and bed of the river channel. It can take place in two directions: vertical and lateral. There are four types of erosion: Hydraulic action, Abrasion, Attrition and Solution. The river moves eroded material through transportation. There are four processes of transportation: Traction, Saltation, Suspension and Solution. When a river drops its eroded material it is known as deposition.</p> <p><u>How are a river change downstream? The long profile</u> There are three courses of a river: the upper, middle and lower. Characteristics of the river and its valley change significantly downstream as each part has distinctive features. The long profile is the change in gradient when compared to distance.</p> <p><u>How does a river change downstream? The cross profile</u> There are three courses of a river: the upper, middle and lower. Characteristics of the river and its valley change significantly downstream as each part has distinctive features. The cross profile also changes significantly downstream.</p> <p><u>How do erosional processes create interlocking spurs and rapids?</u> Rapid vertical erosion in the upper course forms a number of distinctive landforms. Interlocking spurs are areas of more resistant rock left behind because the river erodes softer rock quicker. The river moves between the interlocking spurs. Rapids are fast-flowing sections of a river where there is still a steep gradient. There may be alternate bands of more and less resistant rock across the channel. The soft rock is eroded fastest, leaving an uneven river bed so the flow of water becomes turbulent, crashing against the hard rock, resulting in "white water" rapids.</p> <p><u>How do erosional processes create waterfalls and gorges?</u> There are alternating bands of more and less resistant rock. The river erodes the softer rock and the water starts to fall vertically from the hard rock to the soft rock below. Continued undercutting due to erosion means the soft rock is eroded away by the force of the water through hydraulic action and abrasion, creating an overhang of hard rock. The unsupported rock falls off, the fallen rock breaks up and is caught in the turbulent flow of water. Abrasion occurs, creating a plunge pool which gets wide and deeper over time. As this process repeats, the waterfalls retreats upstream leaving a gorge.</p> <p><u>How do fluvial processes create meanders?</u> A meander is a bend in the river. On the outside bend the water has a high velocity which causes erosion and the bend to get wide. On the inside of the bend the water</p>		<p>Extended writing opportunity - Pupils answer exam style questions at the end of the lesson ranging from 1-6 marks.</p> <p>Extended writing opportunity – Describe a typical drainage basin.</p> <p>Extended writing opportunity – Outline fluvial processes that happen in a river.</p> <p>Extended writing opportunity – Explain the formation of rapids.</p> <p>Extended writing opportunity – Explain the formation of a waterfall. (6 marks)</p> <p>Extended writing opportunity – Explain the formation of Levees.</p> <p>Extended writing opportunity – Explain the formation of an oxbow lake. (6 marks).</p> <p>Extended writing opportunity - Outline how a river characteristics change downstream. (6 marks)</p> <p>Extended writing opportunity – ‘There are more human factors that affect flood risk than physical factors’. Do you agree? (6 marks)</p> <p>Extended writing opportunity – Contrast two hydrographs and suggest why they are different. (6 marks)</p> <p>Extended writing opportunity – Explain how channel straightening can minimise flood risk.</p> <p>Extended writing opportunity – ‘Hard engineering strategies are most effective in minimising the risk of flooding’. To what extent do you agree with this statement? (6 marks)</p>
<p><u>How do fluvial processes create meanders?</u> A meander is a bend in the river. On the outside bend the water has a high velocity which causes erosion and the bend to get wide. On the inside of the bend the water</p>		<p>‘Turn and talk’ opportunity – Should hard engineering strategies be implemented in areas at risk of flooding?</p> <p>‘Turn and talk’ opportunity – What type of hard/soft engineering strategy do you think is the most effective?</p> <p>‘Turn and talk’ opportunity – What does the hydrograph show? What can you infer from the data?</p>
		<p>Homework tasks will be given every week. Homework will support knowledge acquisition</p>



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<p>has a lower velocity due to more friction which causes deposition.</p> <p><u>How do fluvial processes create oxbow lakes?</u> In the lower course of the river meander bends become even more extreme and gradually the neck of the meander narrows eventually forms distinctive features known as oxbow lakes. Oxbow lakes are cut off from the main river channel.</p> <p><u>How does deposition create floodplains and levees?</u> A floodplain is a wide flat area or marshy land on either side of a river that is prone to flooding. When a river bursts its banks, friction with the land reduces velocity and causes deposition. Levees are natural embankments along the river banks. Floodplains and Levees are formed by deposition in times of flood. The river's load is composed of different sized particles. The larger particles form the landform called a levee. The clays, sand and silt are deposited next. Every time the river floods deposition builds up the landform called a floodplain.</p> <p><u>How are estuaries created?</u> An estuary is an area where a freshwater river or stream meets the ocean. In estuaries, the salty ocean mixes with freshwater river, resulting in brackish water.</p> <p><u>How does the River Tees change downstream?</u> The River Tees is located in the north east of the UK to the west of Hartlepool. The river's source is in the Pennines and travels east before reaching the mouth at the North Sea. The river is 137km long.</p> <p><u>How do physical and human factors affect flood risk?</u> Physical and human factors affect flood risk through: prolonged precipitation, geology, relief and land use.</p> <p><u>How do hydrographs show the relationship between precipitation and river discharge?</u> Hydrographs show the relationship between precipitation and discharge. Discharge is the volume of water in a river, at a given place or time. Hydrographs can be 'flashy' or 'gentle' depending on the steepness of the rising and falling limb.</p> <p><u>How do hard engineering strategies minimise flood risk?</u> Hard engineering is an option of managing a river that involves building structures and making use of technology. It controls the flood. It can be expensive and negatively affect ecosystems. They can also displace people. Examples of hard engineering strategies are: dams and reservoirs, straightening meanders, embankments and flood relief channel.</p> <p><u>How do soft engineering strategies minimise flood risk?</u> Soft engineering is a sustainable option of managing a river. It is more environmentally friendly as it works with nature. It is less destructive to the environment, is lower</p>	 <p>Homework</p>	<p>and retention. Challenge homework tasks will be provided. All homework will be recorded on EduLink.</p> <p>Subject specialist keywords: Abrasion Attrition Cross profile Dam and reservoir Discharge Embankments Estuary Flood Flood plain Flood plain zoning Flood relief channels Flood risk Flood warning Fluvial processes Gorge Hard engineering Hydraulic action Hydrographs Interlocking spurs Lateral erosion Levees Long profile Meander Ox-bow lake Precipitation Saltation Soft engineering Solution Channel straightening Suspension Traction Vertical erosion Waterfall</p>
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<p>maintenance/cost and sometimes works with local communities. Examples of soft engineering strategies are: floodplain zoning, flood warnings, afforestation and river restoration.</p> <p><u>Why was a flood management scheme needed in Banbury?</u> Banbury is a town 50km north of Oxford, built on the flood plain of the River Cherwell. It has a long history of flooding. Flooding in 1998 caused damage worth £12.5 million, shutting the railway station and affecting 150 homes and businesses. Banbury experienced flooding again in 2997. A number of strategies have been put in place to protect Banbury from flooding.</p> <p><u>End of Topic Assessment</u> Complete an exam style assessment based on learning from 'UK Physical Landscapes' with the focus on Rivers.</p>		
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<p>Topic 5 – Physical Fieldwork</p> <p><u>Introduction and planning</u> Aim and hypothesis of our enquiry question. Justification on why the site was chosen – accessibility and location. Risk assessment creation by students. Theory on how Carding Mill Valley will compare to the Bradshaw Model.</p> <p><u>Methods and data collection</u> The different types of data collection are primary, secondary, qualitative, quantitative, random sampling, systematic sampling and stratified sampling. Examples of how we collect these types of data. Students to understand how they will be collecting this data for their fieldwork enquiry.</p> <p><u>Physical Fieldwork site visit</u> Students to visit location of physical fieldwork site – Carding Mill Valley. How does the river change downstream? – Students undertake an investigation to see what changes take place as the Carding Mill tributary moves downstream.</p> <p><u>Data presentation</u></p>		
		<p>Multiple exam style questions:</p> <p>Why did we choose Carding Mill Valley as a location (3 marks)</p> <p>Explain the advantage of the location used in your fieldwork enquiry (2 marks)</p> <p>Justify one primary data collection method used in your physical geography enquiry (3 marks)</p> <p>Suggest why one set of data you collected in your physical fieldwork enquiry may not have been accurate (2 marks)</p> <p>Assess the effectiveness of your data presentation technique(s) in your physical geography enquiry (6 marks).</p>



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<p>Data can be presented in different ways e.g. bar chart, line graph, radial/radar graph and pie chart. Students to assess which data presentation is the most effective and plot their data collected from their fieldwork.</p> <p><u>Data analysis</u> Data analysis looks at what we did and how we did it. This will encompass the data collection from the fieldwork, how we collected it and why and how this data was presented – how we presented and why we presented it in this way.</p> <p><u>Conclusions</u> How does the data collected match up with the conclusions that we had originally thought to be true. Does the data support the Bradshaw model, how does it support the model and what evidence do we have of this. E.g. The Bradshaw model suggests that the river will get wider the further downstream, data collected proves this to be true.</p> <p><u>Evaluation</u> Evaluate the effectiveness of our data collection against our enquiry question. Does the data collected at the fieldwork site prove or disprove the enquiry question set. How effective was the data collection, how could it have been improved.</p>		<p>Suggest one advantage and one disadvantage of using the technique shown to measure environmental quality (2 marks)</p> <p>Explain how one data presentation technique used in your physical geography enquiry helped you to interpret the data (6 marks)</p> <p>For one of your fieldwork enquiries, to what extent did the data collected help you to obtain accurate results and reach a valid conclusion? (9 marks) [+3 SPaG marks]</p>
<p>Topic 6: Urban Issues and Challenges</p> <p><u>How is the world’s urban population changing?</u> Urbanisation is an increase in the proportion of a population living in urban areas compared to rural areas. World population levels have increased over time, it has currently surpassed 8 billion. Asia and Africa are the most populated continents.</p> <p><u>Why are urban areas turning into megacities?</u> A megacity is a city with more than ten million people. In 1950, New York City was the only global megacity. Now there are over 35. Urban areas do not only grow in terms of population, they also grow in size. This is called urban sprawl.</p> <p><u>Where is Rio and why is it an important city?</u> Rio Case study: The location and importance of the city and why it is important regionally, nationally and internationally.</p> <p><u>How has urban growth created opportunities?</u> Rio Case study: Urban growth has created social opportunities through access to services e.g. health care and access to resources e.g. water supply and energy. Urban growth has created economic opportunities through urban industrial areas which can be a stimulus for economic growth.</p> <p><u>How has urban growth created challenges?</u></p>		<p>‘Turn and talk’ opportunity – what features are found in the upper, middle and lower course of the river.</p> <p>‘Turn and talk’ opportunity – How does our data collection prove the Bradshaw model to be true?</p>
	<p>Homework:</p>	<p>Homework tasks will be given every week. Homework will support knowledge acquisition and retention. Challenge homework tasks will be provided. All homework will be recorded on EduLink.</p>
		<p>Guided reading opportunity – Urban growth challenges</p> <p>Guided reading opportunity – Urban growth opportunities.</p> <p>Guided reading opportunity – Reading around case study: Freiberg.</p>
		<p>Extended writing opportunity - Pupils answer exam style questions at the end of the lesson ranging from 1-9 marks.</p> <p>Extended writing opportunity – To what extent do urban areas in LICs/NEEs provide social and economic opportunities for people? (6 marks)</p> <p>Extended writing opportunity – Evaluate the effectiveness of an urban planning strategy in helping improve the quality of life for the urban poor. (9 marks).</p> <p>Extended writing opportunity – To what extent do urban areas in LICs/NEEs provide social and economic opportunities for people? (6 marks)</p> <p>Extended writing opportunity – Evaluate the effectiveness of an urban planning strategy in</p>



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<p>Rio Case study: Urban growth has created challenges through managing urban growth e.g. the growth of slums and squatter settlements. Providing clean water, sanitation systems and energy. Managing environmental issues, e.g. waste disposal, air and water pollution and traffic congestion.</p> <p><u>How is urban planning improving the quality of life for the urban poor?</u> Rio Case study: An example of urban planning and how it is improving the life of the urban poor.</p> <p><u>Where do people live in the UK?</u> The majority of people live in England. There are roughly the same amount of people living in London as there are in Scotland and Wales. Major cities in the UK include: London, Birmingham, Manchester, Cardiff, Edinburgh and Belfast.</p> <p><u>Why is Bristol important to the city and the wider world?</u> Bristol Case Study: The location and importance of the city to the UK and the wider world. Impacts of national and international migration on the growth and character of the city.</p>		<p>helping improve the quality of life for the urban poor. (9 marks).</p> <p>Extended writing opportunity – To what extent has urban change created opportunities in a UK city you have studied? (9 marks) Extended writing opportunity – Discuss the effects of urban sprawl on people and the environment. (6 marks)</p> <p>Extended writing opportunity – To what extent has urban change created opportunities in a UK city you have studied? (9 marks) Extended writing opportunity – Discuss the effects of urban sprawl on people and the environment. (6 marks)</p> <p>Extended writing opportunity – Explain how urban regeneration projects can reduce levels of urban deprivation. (6 marks)</p> <p>Extended writing opportunity – Discuss how urban living can be made more sustainable. (6 marks).</p>
<p><u>How has Bristol changed as an urban area?</u> Bristol Case Study: Urban decline is the deterioration of the inner city usually caused by lack of investment and maintenance. It is often accompanied by a decline in population numbers and unemployment. Deindustrialisation can happen because of competition from abroad, new technologies or resource depletion. Effects can include social, economic and environmental.</p> <p><u>How has urban change created opportunities?</u> Bristol Case Study: Urban change has created social, economic and environmental opportunities. E.g. Urban greening, cultural mix and employment.</p> <p><u>How has urban change created challenges?</u> Bristol Case Study: Urban change has created social, economic and environmental challenges. E.g. urban deprivation, inequalities in housing, education, building on brownfield and greenfield sites. The impact of urban sprawl on the rural-urban fringe, and the growth of commuter settlements.</p>		<p>‘Turn and talk’ opportunity – What cities around the world do you think are megacities?</p> <p>‘Turn and talk’ opportunity – What cities in the UK do you think are megacities?</p> <p>‘Turn and talk’ opportunity – What opportunities do people have living in the city compared to the countryside?</p> <p>‘Turn and talk’ opportunity – Why is case study location an important city in the UK?</p> <p>‘Turn and talk’ opportunity - What challenges do people have living in the city?</p> <p>‘Turn and talk’ opportunity – Can urban living be made sustainable?</p>
<p><u>How did urban regeneration changed Bristol Temple Quarter?</u> Bristol Case Study: Urban regeneration involves improving the economic, social and environmental conditions of previously run-down areas. This often includes creating mixed land use areas. E.g. land which has a mixture of uses such as business, leisure and residential.</p>	<p>Homework</p>	<p>Homework tasks will be given every week. Homework will support knowledge acquisition and retention. Challenge homework tasks will be provided. All homework will be recorded on EduLink.</p> <p>Subject specialist keywords: Brownfield site Derelection Economic opportunities Greenfield site</p>



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<p><u>How can we make urban living sustainable?</u> Case study: Freiberg: A sustainable urban area is where residents have a quality of life that will last a long time. There are three strands of sustainability: economic – job opportunities, social – strong sense of community and environmental – creating green space. Features of sustainable urban living include: waste and energy conservation, waste recycling and creating greenspace.</p> <p><u>How can urban transport strategies reduce traffic congestion?</u> Case study: Freiberg: An integrated transport system is a connected network of buses, trains and trams. Traffic congestion was a problem for Freiberg. They created an integrated traffic plan which is updated every 10 years. It is cheap and accessible public transport.</p> <p><u>End of Topic Assessment</u> Complete an exam style assessment based on learning from ‘Urban Issues and Challenges’.</p>		<p>Inequalities Integrated transport system Mega-cities Migration Natural increase Pollution Rural-urban fringe Sanitation Social deprivation Social opportunities Squatter settlement Sustainable urban living Traffic congestion Urban greening Urbanisation Urban regeneration Urban sprawl</p>
<p>British Values: Individual liberty: Students are able to have a freedom of expression whilst respecting others during contributions to class discussions. Students are encouraged as much as possible to develop independent learning skills to help us take control of our own learning. Students have opportunities to critically examine our own values and attitudes (in debating issues, contributing in class etc.)</p> <p>Tolerance of different religions and cultures: Students understand the importance of identifying and combating discrimination including tackling stereotypes. Students learn to understand and respect the traditions of other cultures.</p> <p>Rule of Law: Students have opportunities to explore and understand how governments have influenced and shaped nations through law.</p> <p>Democracy: Students explore and discuss injustices and inequalities (perceived or real) and challenge and debate these through the exploration of geographical topics.</p> <p>Careers Link: Social worker Spatial inequality worker Youth worker Primary school teacher Secondary school teacher University lecturer Transport logistics manager Urban city planner GIS specialist Council/Government worker Lawyer</p>		